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TITLE: Method and apparatus for identifying
objects depicted in
a videostream

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Other Reference Publication - OREF (15):

A Real-Time Traffic Sign Recognition System, S. Estable,
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(54) **METHOD AND APPARATUS FOR IDENTIFYING OBJECTS DEPICTED IN A VIDEOSTREAM**

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(58) Field of Search **382/190, 163,**
382/164, 165, 104, 155, 159, 162, 166

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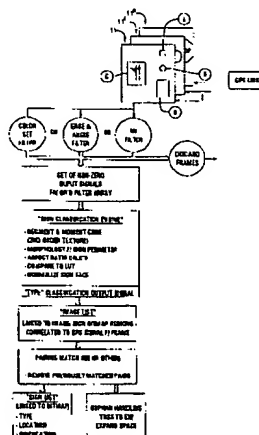
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Christensen, P.A.

(57) **ABSTRACT**

The present invention relates to an apparatus for rapidly
analyzing frame(s) of digitized video data which may
include objects of interest randomly distributed throughout
the video data and wherein said objects are susceptible to
detection, classification, and ultimately identification by
filtering said video data for certain differentiable character-
istics of said objects. The present invention may be practiced
on pre-existing sequences of image data or may be inte-
grated into an imaging device for real time, dynamic, object
identification, classification, logging/counting, cataloging,
retention (with links to stored bitmaps of said object),
retrieval, and the like. The present invention readily lends
itself to the problem of automatic and semi-automatic cata-
logging of vast numbers of objects such as traffic control signs
and utility poles disposed in myriad settings. When used in
conjunction with navigational or positional inputs, such as
GPS, an output from the inventive system indicates the
identity of each object, calculates object location, classifies
each object by type, extracts legible text appearing on a
surface of the object (if any), and stores a visual represen-
tation of the object in a form dictated by the end user/
operator of the system. The output lends itself to examina-
tion and extraction of scene detail which cannot practically
be successfully accomplished with just human viewers oper-
ating video equipment, although human intervention can
still be used to help judge and confirm a variety of classi-
fications of certain instances and for types of identified
objects.

6 Claims, 8 Drawing Sheets



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